

COMPLETED DATE: 7-7-15

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

BUREAU OF LAND / FIELD OPERATIONS SECTION

RCRA INSPECTION REPORT

GENERAL FACILITY INFORMATION

USEPA ID #:	N/A	BOL ID #:	1190505040
Facility Name:	Hartford Free Hydrocarbon Plume		Phone #:
Location	Northern Hartford	County:	Madison
City:	Hartford	State:	IL
Region:	Collinsville	Inspection Date:	5/27-28/15
Weather:	cloudy, dry, temps in the 60s		Time:
Latitude:	Longitude:	Collection Pt. Description:	
(Example: Lat.: 41.26493	Long.: -89.38294)	Collection Method:	

FACILITY TYPE

Notified As:	Regulated As:
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INSPECTION TYPE

CEI:	<input type="checkbox"/>	GME:	<input type="checkbox"/>	OAM:	<input type="checkbox"/>	NRR:	<input type="checkbox"/>	CSE:	<input type="checkbox"/>	CAO:	<input type="checkbox"/>	FUI to:		
FCI (Other):											CCI:	<input type="checkbox"/>	CSI:	<input checked="" type="checkbox"/>

NOTIFICATION DATES (EPA 8700-12)

Initial:	Subsequent:
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PART A PERMIT DATES (EPA 3510-3 OR EPA 8700-23)

Initial:	Amended:	Withdrawn:
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PART B PERMIT

(Check one if applicable) Application Submitted?	<input type="checkbox"/>	Permit Issued?	<input type="checkbox"/>	Date:
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ACTIVE ENFORCEMENT

Date facility referred to:	USEPA:	IAGO:	County State's Attorney:
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ACTIVE ENFORCEMENT ORDERS

CACO:	CAFO:	Federal Court Order:
Consent Decree:	3-17-04	IPCB Order:
		State Court Order:

TSD FACILITY ACTIVITY SUMMARY

Activity by Process Code	On Part A?	On Part B?	Activity ever done?	Closed?	Being done during inspection?	Exempt per 35 IAC Sec:
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

OWNER

OPERATOR

Name:	Hartford Free Hydrocarbon Pool	Name:	same
Address:	North Hartford	Address:	
City:	Hartford	City:	
State:	IL	State:	
Zip Code:	62048	Zip Code:	
Phone #:		Phone #:	

PERSON(S) INTERVIEWED

TITLE

PHONE

Chris Martin	Environmental Technician, Trihydro	801-755-3091
Carl Byrd	Field Supervisor, Apex	N/A

INSPECTION PARTICIPANTS

AGENCY/BUREAU

PHONE

Gina Search*	IEPA/BOL	618-346-5157

*Report prepared by this person.

SUMMARY OF APPARENT VIOLATIONS

SECTION	X	SECTION	X	SECTION	X
	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>

X = CONTINUING VIOLATIONS



Illinois Environmental Protection Agency

Bureau of Land & Field Operations Section & Collinsville Regional Office

1190505040—Madison County
Hartford Hydrocarbon Plume
Groundwater File

RCRA Compliance Sampling Inspection

On May 27 & 28, 2015, I conducted a RCRA Compliance Sampling Inspection in the Village of Hartford. The Hartford Petroleum Release site has numerous groundwater monitoring wells that are routinely monitored as part of the remediation work being conducted for the site. Five of the groundwater monitoring wells serve as sentinel wells for the Hartford Public Water Supply wells. This was a split sampling event requested by USEPA in response to low level Benzene, Toluene, Ethylbenzene and Xylene (BTEX) detections in two sentinel monitoring wells during the 1st quarter 2015 round of groundwater sampling. Chris Martin, Environmental Technician with Trihydro, and Carl Byrd, Field Supervisor with APEX, conducted the sampling activities.

This inspection consisted of splitting samples with APEX from all five sentinel wells. The wells were scheduled to be sampled as part of the second quarter sampling event. The focus of the field inspection was to review the sampling protocol employed by the sampling team and to collect split samples to verify the condition of the groundwater in the sentinel wells.

On May 15, 2015, IEPA received the following report: First Quarter 2015 Sentinel Well Monitoring Summary Report, Hartford Petroleum Release Site, Hartford, Illinois. The groundwater analytical results for sentinel well HMW-025 reported 2.8 ug/L benzene and 1.6 ug/L ethylbenzene. HMW-026 reported 1.0 ug/l ethylbenzene. Total xylenes were detected in all five sentinel monitoring samples; the concentrations were estimated between 1.4 ug/l and 5.4 ug/l.

All five sentinel wells were chosen for the May 27, 2015 sampling event: HMW-25, HMW-26, HMW-27, HMW-28, HMW-29. These wells form an arc that outlies the public water supply well head protection area by approximately 600 feet. They are located up-gradient of the interpreted extent of dissolved phase benzene plume located in the northern portion of the Village.

Field Evaluation

During this inspection the second quarter of groundwater sampling was being conducted. The sampling team, Chris Martin and Carl Byrd sampled all five sentinel wells. This was the second quarter they had conducted the groundwater sampling event. Prior to 1st quarter 2015, URS had conducted the quarterly sampling events.

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Low-flow groundwater sampling methodology was followed for collecting the groundwater monitoring well samples. A monsoon pump was run by a vehicle battery. The vehicle was shut off during sample collection.

Upon uncapping of the well, depth-to-water measurements were collected with a water-level indicator. The readings were taken from the top of the well casing and recorded to the nearest 0.01 foot. All measurement data was recorded in the field log. Headspace readings were not collected based on previous sampling knowledge of these wells.

Polyethylene tubing was measured and cut so that the pump placement would be approximately three feet below the top of the water table. This placement worked since the water level was approximately at the top of the well screen.

Well #	Depth to Water (feet bgs)	Total Depth (feet bgs)	Top of Screen (feet bgs)	Bottom of Screen (feet bgs)	Pump Placement Depth (feet bgs)
HWM-25	26.14	38.65	24.00	38.70	29.00
HMW-26	24.61	37.76	25.00	37.76	28.00
HMW-27	29.71	39.35	25.00	39.70	34.00
HMW-28	29.12	39.76	25.00	39.76	33.00
HMW-29	28.25	35.15	25.00	39.70	34.00

bgs =below ground surface

The wells were purged with a Monsoon bladder pump at a rate of 300 ml per minute. Drawdown was continuously measured in each well during purging. Stabilization parameters were collected every five minutes and recorded in the field notes. The following field parameters were collected: pH, Specific Conductivity, Temperature, Turbidity, Dissolved Oxygen and Oxygen Reduction Potential. Stabilization was complete when three consecutive readings met the following criteria:

pH: ± 0.1
Specific Conductivity: $\pm 3\%$
Temperature: $\pm 3\%$
Turbidity: ± 10 millivolts
Dissolved Oxygen: $\pm 10\%$
Oxygen Reduction Potential: ± 0.3 milligrams per liter

Final Stabilization Readings

Well #	Time	Purge Volume	Specific Conductivity	Temperature	Dissolved Oxygen	Oxygen Reduction Potential	Turbidity
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1190505040—Madison County
Hartford Hydrocarbon Plume
Groundwater File

HMW25	8:44	4.5 L	810	17.82	0.13	143	0.30
HMW26	10:00	6.0 L	1370	18.97	0	-44	14.9
HMW27	2:20	12.0 L	1020	18.27	0	15	0
HMW28	10:10	4.5 L	773	18.34	0	121	0
HMW29	11:25	12.0 L	802	19.52	0	-35	6.4

The in-line flow cell was disconnected before sampling began. The groundwater samples were obtained directly from tubing attached to the well pump, and the sample bottles were filled to avoid overtopping and rinsing of the bottle. Duplicate samples were collected from every well in case additional analyses are necessary for verification purposes. Teklab provides the sample bottles and performs the laboratory analyses. After all of the wells were sampled, the filled sample bottles were stored in coolers on ice until they are driven to the laboratory.

The Trihydro personnel experienced some difficulties with the rented Monsoon bladder pump. While sampling monitoring well HMW27, the pump stopped operating. A new pump was delivered to the site that day, but the replacement pump controller stopped working before the start of purging HMW 28. A new pump could not be delivered until the next morning, so the final two wells, HMW28 and HMW29, were sampled on May 28, 2015.

Split samples

I split with Apex on five monitoring wells: HWM25, HWM26, HWM27, HWM28 and HMW29.

My sampling technique was in general accordance with the Bureau of Land sampling procedures guidance document. Trihydro personnel operated the sampling equipment and we alternated filling the sample bottles. These wells were good producers, so there was plenty of water to fill all of Apex's and IEPA's bottles.

For each well, I filled three 40 ml preserved glass vials. Prior to sampling, I attached sample labels to each bottle, listing the following information: site number, site name, sampling date and sample ID number. I followed the Agency's procedure for assigning field numbers to the samples (e.g. G102).

After collection, I sealed all the samples according to Bureau of Land Administrative Procedure #39: Chain of Custody Procedures for DLPC/FOS Samples. I documented the samples on the DLPC/FOS Chain of Custody Document. Each sample was wrapped in bubble wrap and packed in coolers on ice. I had one set of trip blanks stored in the cooler each day of sampling.

This round of sampling lasted two days, and I was not able to deliver the samples to the laboratory until the end of second day of sampling. The bagged and sealed samples were stored in sample refrigerators at the Collinsville Regional Office. They were driven to the IEPA Springfield Laboratory on May 28, 2015.

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The analytical data was received by the Collinsville Regional Office on June 15, 2015. The results for all five sentinel wells were nondetect. A copy of the results is attached.

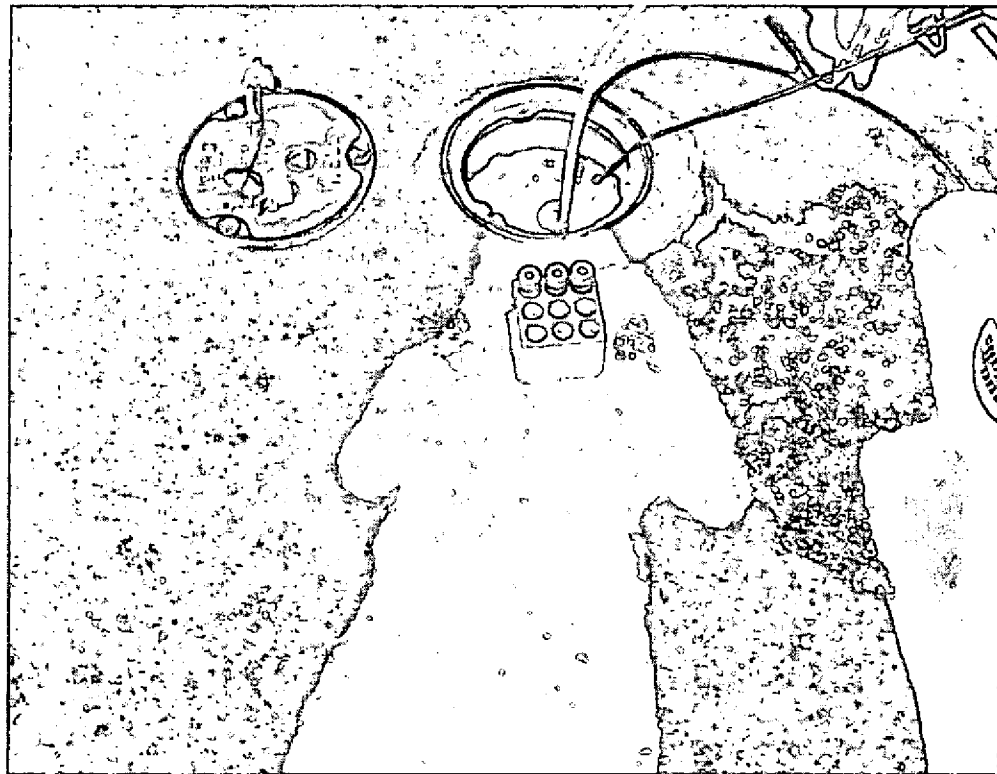


Illinois Environmental Protection Agency
Bureau of Land
Division of Land Pollution Control

1190505040 — Madison County
Hartford Hydrocarbon Plume
FOS File

DIGITAL PHOTOGRAPHS File Names: 1190505040 -05272015-[Exp. #4].jpg

Date: 5/27/2015
Time: 7:30am-3:30pm
Direction: S
Photo by: G. Search
Exposure #:3
Comments:



Date: 5/27/2015
Time: 7:30am-3:30pm
Direction: W
Photo by: G. Search
Exposure #: 4
Comments:



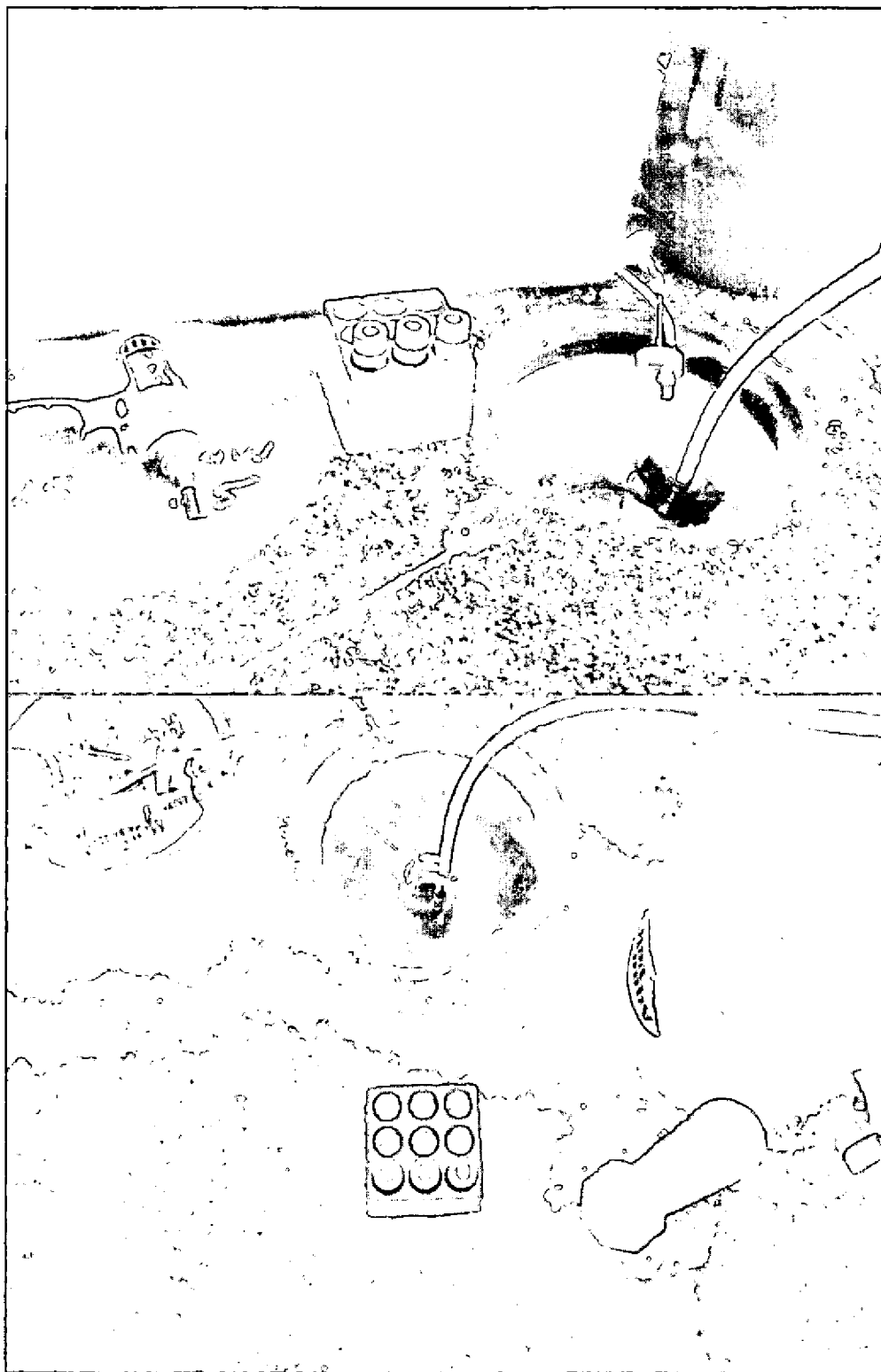


Illinois Environmental Protection Agency
Bureau of Land
Division of Land Pollution Control

1190505040 — Madison County
Hartford Hydrocarbon Plume
FOS File

DIGITAL PHOTOGRAPHS

File Names: 1190505040 -05272015-[Exp. #4].jpg



Date: 5/27/2015
Time: 7:30am-3:30pm
Direction: E
Photo by: G. Search
Exposure #: 1
Comments:

Date: 5/27/2015
Time: 7:30am-3:30pm
Direction: N
Photo by: G. Search
Exposure #: 2
Comments:

1190505040 - Madison County
Hartford Hydrocarbon Plume
Groundwater File

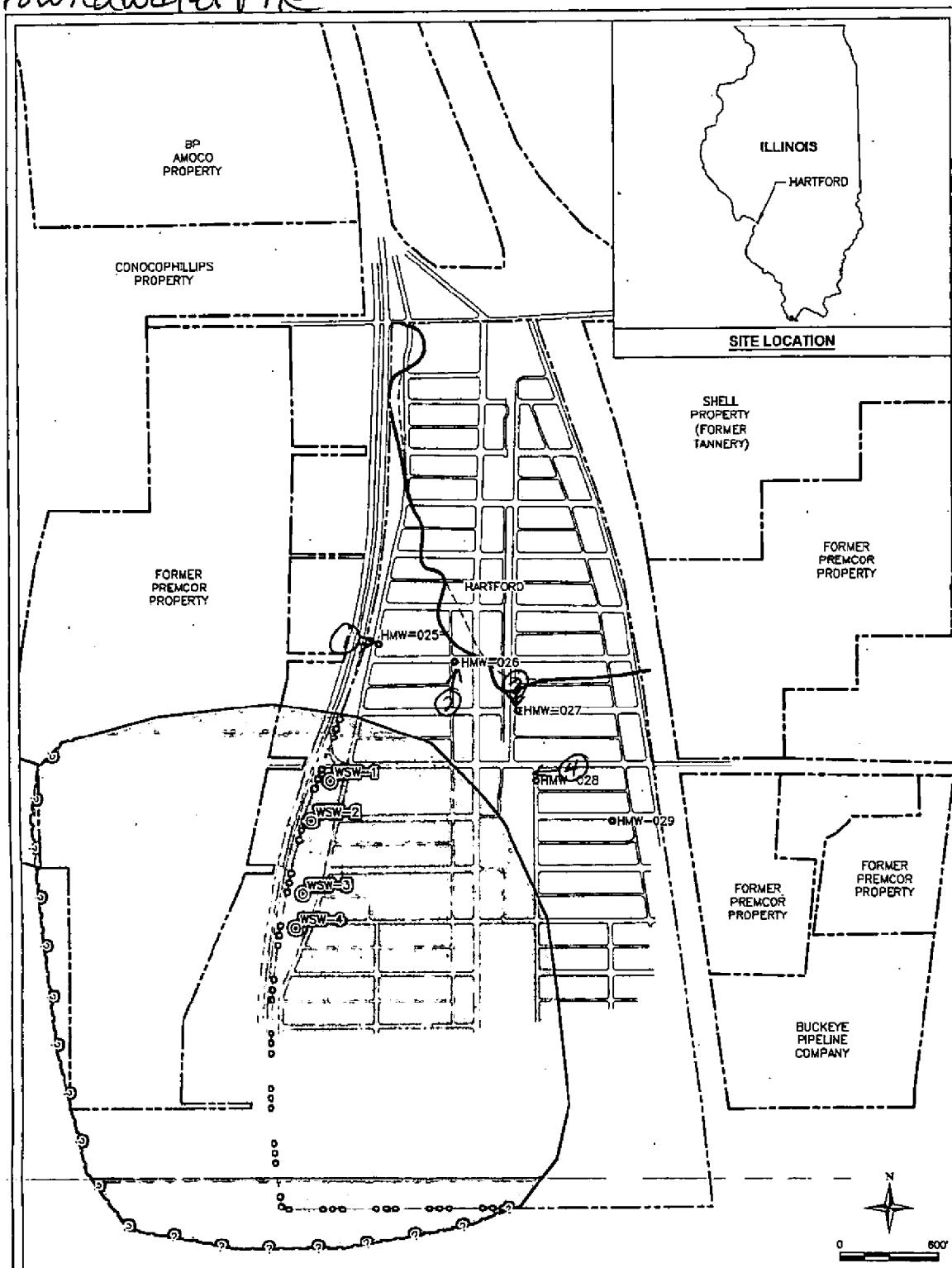


Image Cite: MapInfo, Satellite Provider - DigitalGlobe, Image Capture Date - March 8, 2013

EXPLANATION

- | | | | |
|-----------|---|-------|---|
| ● WSW-1 | PUBLIC WATER SUPPLY WELL AND DESIGNATION | ----- | INTERPRETED EXTENT OF LF RESPONSE (ALL STRATA) |
| ● HMW-029 | GROUNDWATER MONITORING SENTINEL WELL AND DESIGNATION | ===== | INTERPRETED EXTENT OF DISSOLVED PHASE BENZENE (2012, MAIN SAND) |
| --- | PROPERTY BOUNDARY (APPROXIMATE) | | |
| - - - - - | HARTFORD PROPERTY BOUNDARY (APPROXIMATE) | | |
| - - - - - | PUBLIC WATER SUPPLY WELL HEAD PROTECTION AREA (UNKNOWN) | | |
| [] | PUBLIC WATER SUPPLY WELL HEAD PROTECTION AREA | | |

NOTE: INTERPRETED EXTENT OF LF RESPONSE FROM APPENDIX A OF "ACTIVE LNAPL RECOVERY SYSTEM 90% DESIGN REPORT", CLAYTON GROUP SERVICES, INC., JULY 31, 2006, AND UPDATED USING 2013 LF RESULTS.

Trihydro
CORPORATION
1322 Commerce Drive
Lancaster, Wyoming 82070
www.trihydro.com
(307) 745,7474 (F) 307 745,7729

Drawn By: KBW Checked By: PM Scale: 1" = 1,000' Date: 4/13/15 File: 245_WELLFIELD&Z_201505

FIGURE 1

SITE LAYOUT

HARTFORD PETROLEUM RELEASE SITE
HARTFORD, ILLINOIS

✓m

Illinois Environmental Protection Agency
Bureau of Land, DLPC/FOS
Chain of Custody Document
Page of

Fund	BOL #	County	Locality	File Category
Section	USEPA ID#	Site Name		
F	1190505040	Madison	Hartford	Groundwater
Project Manager's Name/Address/Phone #:		Other Laboratory Name, Address, and Phone #		
Illinois EPA Laboratory 825 N. Rutledge Street, Springfield, IL 62702 217782-9780; 217557-0274		Village of Hartford		

Project Manager's Name/Address/Phone #:	Seal Intact ? (y/n)
Illinois EPA Laboratory 825 N. Rutledge Street, Springfield, IL 62702 217782-9780; 217557-0274	

Lab Sample #	Parameter Group & Other Analytes				Field Sample #	Legal Hold?	Split?	# Bottles	Volume (give units)	Date Collected & Sealed	Time Collected (24 hr clock)	Time Sealed (24 hr clock)	Collection Information		Collector or Laboratory Comments Do not include personal identifier information for samples collected on private residential property.	Seal Intact ? (y/n)
	✓	✓	✓	✓									Time	Sampler's Initials		
3ES1137-01	✓	✓	✓	✓	G125	□	□	3		5/27/15	8:50	1530	YS	YS	HMW-025 clear sample	
-02	✓	✓	✓	✓	G126	□	□	3		5/27/15	10:05	1530	YS	YS	HMW-026 clear sample	
-03	✓	✓	✓	✓	G127	□	□	3		5/27/15	14:25	1530	YS	YS	HMW-027 clear sample	
-07	✓	✓	✓	✓	Tip Blank	□	□	2		5/27/15		1530	YS	YS		
-04	✓	✓	✓	✓	G128	□	□	3		5/28/15	10:10	1130	YS	YS	HMW-028 clear sample	
-05	✓	✓	✓	✓	G129	□	□	3		5/28/15	11:25	1130	YS	YS	HM-029 clear sample	
-08	✓	✓	✓	✓	Tip Blank	□	□	3		5/28/15		1130	YS	YS		
-06	✓	✓	✓	✓	G129D	□	□	3		5/28/15	11:25	1130	YS	YS	RECEIVED	
	□	□	□	□		□	□								JUN 15 2015	
	□	□	□	□		□	□								IEPA	
	□	□	□	□		□	□								COLLECTOR'S OFFICE	

Receipt for Samples: Collection of these sample(s) at the above-named site is hereby acknowledged.

Signature of Facility Representative, Date	Sealer's Signature	Date	Time (24 hr clock)
Chris Martin	Anna Search	5/28/15	1135

Samplers (printed names and signatures)	Sealer's Signature	Date	Time (24 hr clock)
Anna Search Gina Search	Anna Search	5/28/15	1135

Carriers: I certify that I received the above sample(s) with the seal(s) intact and the sealer's initials (and sealing date written on the seal(s)).	Received by	Date	Time (24 hr clock)
Relinquished by	Anna Search	5/28/15	1430

IL 532-2311
LPC 525
REV. 1/18/13

Laboratory Custodian: I certify that I received the above sample(s) with the seal integrity as indicated and the sealer's initials as indicated and the date written on the seal(s). After being received, this/these same sample(s) will be retained by laboratory personnel at all times or locked in a secured area.	Signature of laboratory supervisor releasing results	Date
Eric Search	Enlin	6/3/15

Printed Name and Signature	Sample Temp. (°C)
Eric Search	4

To Container for Shipment by Commercial Carrier	Signature of laboratory supervisor releasing results	Date
□	Enlin	6/3/15



Illinois Environmental Protection Agency Laboratory

825 N. Rutledge Springfield, Illinois 62702 217.782.9780

LABORATORY RESULTS

Name:	HARTFORD		
Project/Facility Number:	1190505040	Date Received :	05/28/15
Funding Code:	LP52	Visit Number:	
Trip ID:		Temperature C:	4.00
Client Sample ID:	G125	Lab Sample ID:	SE51137-01
Matrix:	Water	Collected By:	GS
		Date/Time Collected:	05/27/15 8:50
Sample Type:		Sample Depth:	
		Total Depth:	0

Volatile Organic Compounds by GC/MS

Method:	524.2	Prepared:	05/28/15 14:04
Units:	ug/L	Analyzed:	05/28/15 17:11

<u>Analyte</u>	<u>Result</u>	<u>Qualifier</u>	<u>Reporting Limit</u>	<u>Regulatory Level</u>
Vinyl chloride	ND		0.50	2
1,1-Dichloroethene	ND		0.50	7
Methylene chloride	ND		0.50	5
trans-1,2-Dichloroethene	ND		0.50	100
Methyl tert-butyl ether	ND		0.50	
cis-1,2-Dichloroethene	ND		0.50	70
1,2-Dichloroethane	ND		0.50	5
1,1,1-Trichloroethane	ND		0.50	200
Carbon tetrachloride	ND		0.50	5
Benzene	ND		0.50	5
1,2-Dichloropropane	ND		0.50	5
Trichloroethene	ND		0.50	5
1,1,2-Trichloroethane	ND		0.50	5
Toluene	ND		0.50	1000
Tetrachloroethene	ND		0.50	5
Chlorobenzene	ND		0.50	100
Ethylbenzene	ND		0.50	700
Styrene	ND		0.50	100
1,4-Dichlorobenzene	ND		0.50	75
1,2-Dichlorobenzene	ND		0.50	600
1,2,4-Trichlorobenzene	ND		0.50	70
Xylenes, total	ND		0.50	10000

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety. Test results meet all requirements of NELAC (accredited by Florida DOH #E37645). If you have any questions about this report, please contact Tom Weiss, Laboratory Manager, at 217.782.9780.

Reported:
06/03/15 12:38
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Illinois Environmental Protection Agency Laboratory

825 N. Rutledge Springfield, Illinois 62702 217.782.9780

LABORATORY RESULTS

Name:	HARTFORD		
Project/Facility Number:	1190505040	Date Received :	05/28/15
Funding Code:	LP52	Visit Number:	
Trip ID:		Temperature C:	4.00
Client Sample ID:	G126	Lab Sample ID:	SE51137-02
Matrix:	Water	Collected By:	GS
		Date/Time Collected:	05/27/15 10:05
Sample Type:		Sample Depth:	
		Total Depth:	0

Volatile Organic Compounds by GC/MS

Method:	524.2	Prepared:	05/28/15 14:04
Units:	ug/L	Analyzed:	05/28/15 17:50

<u>Analyte</u>	<u>Result</u>	<u>Qualifier</u>	<u>Reporting Limit</u>	<u>Regulatory Level</u>
Vinyl chloride	ND		0.50	2
1,1-Dichloroethene	ND		0.50	7
Methylene chloride	ND		0.50	5
trans-1,2-Dichloroethene	ND		0.50	100
Methyl tert-butyl ether	ND		0.50	
cis-1,2-Dichloroethene	ND		0.50	70
1,2-Dichloroethane	ND		0.50	5
1,1,1-Trichloroethane	ND		0.50	200
Carbon tetrachloride	ND		0.50	5
Benzene	ND		0.50	5
1,2-Dichloropropane	ND		0.50	5
Trichloroethene	ND		0.50	5
1,1,2-Trichloroethane	ND		0.50	5
Toluene	ND		0.50	1000
Tetrachloroethene	ND		0.50	5
Chlorobenzene	ND		0.50	100
Ethylbenzene	ND		0.50	700
Styrene	ND		0.50	100
1,4-Dichlorobenzene	ND		0.50	75
1,2-Dichlorobenzene	ND		0.50	600
1,2,4-Trichlorobenzene	ND		0.50	70
Xylenes, total	ND		0.50	10000

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety. Test results meet all requirements of NELAC (accredited by Florida DOH #E37645). If you have any questions about this report, please contact Tom Weiss, Laboratory Manager, at 217.782.9780.

Reported:
06/03/15 12:38
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Illinois Environmental Protection Agency Laboratory

825 N. Rutledge Springfield, Illinois 62702 217.782.9780

LABORATORY RESULTS

Name: **HARTFORD**

Project/Facility Number: 1190505040

Funding Code: LP52

Trip ID:

Client Sample ID: **G127**

Matrix: Water

Sample Type:

Collected By: GS

Sample Depth:

Date Received : 05/28/15

Visit Number:

Temperature C: 4.00

Lab Sample ID: **SE51137-03**

Date/Time Collected: 05/27/15 14:25

Total Depth: 0

Volatile Organic Compounds by GC/MS

Method: 524.2

Units: ug/L

Prepared: 05/28/15 14:04

Analyzed: 05/28/15 18:30

<u>Analyte</u>	<u>Result</u>	<u>Qualifier</u>	<u>Reporting Limit</u>	<u>Regulatory Level</u>
Vinyl chloride	ND		0.50	2
1,1-Dichloroethene	ND		0.50	7
Methylene chloride	ND		0.50	5
trans-1,2-Dichloroethene	ND		0.50	100
Methyl tert-butyl ether	ND		0.50	
cis-1,2-Dichloroethene	ND		0.50	70
1,2-Dichloroethane	ND		0.50	5
1,1,1-Trichloroethane	ND		0.50	200
Carbon tetrachloride	ND		0.50	5
Benzene	ND		0.50	5
1,2-Dichloropropane	ND		0.50	5
Trichloroethene	ND		0.50	5
1,1,2-Trichloroethane	ND		0.50	5
Toluene	ND		0.50	1000
Tetrachloroethene	ND		0.50	5
Chlorobenzene	ND		0.50	100
Ethylbenzene	ND		0.50	700
Styrene	ND		0.50	100
1,4-Dichlorobenzene	ND		0.50	75
1,2-Dichlorobenzene	ND		0.50	600
1,2,4-Trichlorobenzene	ND		0.50	70
Xylenes, total	ND		0.50	10000

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety. Test results meet all requirements of NELAC (accredited by Florida DOH #E37645). If you have any questions about this report, please contact Tom Weiss, Laboratory Manager, at 217.782.9780.

Reported:

06/03/15 12:38

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Illinois Environmental Protection Agency Laboratory

825 N. Rutledge Springfield, Illinois 62702 217.782.9780

LABORATORY RESULTS

Name:	HARTFORD		
Project/Facility Number:	1190505040	Date Received :	05/28/15
Funding Code:	LP52	Visit Number:	
Trip ID:		Temperature C:	4.00
Client Sample ID:	G128	Lab Sample ID:	SE51137-04
Matrix:	Water	Collected By:	GS
		Date/Time Collected:	05/28/15 10:10
Sample Type:		Sample Depth:	
		Total Depth:	0

Volatile Organic Compounds by GC/MS

Method:	524.2	Prepared:	05/28/15 14:04
Units:	ug/L	Analyzed:	05/28/15 19:10

<u>Analyte</u>	<u>Result</u>	<u>Qualifier</u>	<u>Reporting Limit</u>	<u>Regulatory Level</u>
Vinyl chloride	ND		0.50	2
1,1-Dichloroethene	ND		0.50	7
Methylene chloride	ND		0.50	5
trans-1,2-Dichloroethene	ND		0.50	100
Methyl tert-butyl ether	ND		0.50	
cis-1,2-Dichloroethene	ND		0.50	70
1,2-Dichloroethane	ND		0.50	5
1,1,1-Trichloroethane	ND		0.50	200
Carbon tetrachloride	ND		0.50	5
Benzene	ND		0.50	5
1,2-Dichloropropane	ND		0.50	5
Trichloroethene	ND		0.50	5
1,1,2-Trichloroethane	ND		0.50	5
Toluene	ND		0.50	1000
Tetrachloroethene	ND		0.50	5
Chlorobenzene	ND		0.50	100
Ethylbenzene	ND		0.50	700
Styrene	ND		0.50	100
1,4-Dichlorobenzene	ND		0.50	75
1,2-Dichlorobenzene	ND		0.50	600
1,2,4-Trichlorobenzene	ND		0.50	70
Xylenes, total	ND		0.50	10000

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Illinois Environmental Protection Agency Laboratory

825 N. Rutledge Springfield, Illinois 62702 217.782.9780

LABORATORY RESULTS

Name:	HARTFORD		
Project/Facility Number:	1190505040	Date Received :	05/28/15
Funding Code:	LP52	Visit Number:	
Trip ID:		Temperature C:	4.00
Client Sample ID:	G129	Lab Sample ID:	SE51137-05
Matrix:	Water	Collected By:	GS
		Date/Time Collected:	05/28/15 11:25
Sample Type:		Sample Depth:	
		Total Depth:	0

Volatile Organic Compounds by GC/MS

Method:	524.2	Prepared:	05/28/15 14:04
Units:	ug/L	Analyzed:	05/28/15 19:49

<u>Analyte</u>	<u>Result</u>	<u>Qualifier</u>	<u>Reporting Limit</u>	<u>Regulatory Level</u>
Vinyl chloride	ND		0.50	2
1,1-Dichloroethene	ND		0.50	7
Methylene chloride	ND		0.50	5
trans-1,2-Dichloroethene	ND		0.50	100
Methyl tert-butyl ether	ND		0.50	
cis-1,2-Dichloroethene	ND		0.50	70
1,2-Dichloroethane	ND		0.50	5
1,1,1-Trichloroethane	ND		0.50	200
Carbon tetrachloride	ND		0.50	5
Benzene	ND		0.50	5
1,2-Dichloropropane	ND		0.50	5
Trichloroethene	ND		0.50	5
1,1,2-Trichloroethane	ND		0.50	5
Toluene	ND		0.50	1000
Tetrachloroethene	ND		0.50	5
Chlorobenzene	ND		0.50	100
Ethylbenzene	ND		0.50	700
Styrene	ND		0.50	100
1,4-Dichlorobenzene	ND		0.50	75
1,2-Dichlorobenzene	ND		0.50	600
1,2,4-Trichlorobenzene	ND		0.50	70
Xylenes, total	ND		0.50	10000

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Illinois Environmental Protection Agency Laboratory

825 N. Rutledge Springfield, Illinois 62702 217.782.9780

LABORATORY RESULTS

Name:	HARTFORD		
Project/Facility Number:	1190505040	Date Received :	05/28/15
Funding Code:	LP52	Visit Number:	
Trip ID:		Temperature C:	4.00
Client Sample ID:	G129D	Lab Sample ID:	SE51137-06
Matrix:	Water	Collected By:	GS
		Date/Time Collected:	05/28/15 11:25
Sample Type:		Sample Depth:	
		Total Depth:	0

Volatile Organic Compounds by GC/MS

Method:	524.2	Prepared:	05/28/15 14:04
Units:	ug/L	Analyzed:	05/28/15 20:29

<u>Analyte</u>	<u>Result</u>	<u>Qualifier</u>	<u>Reporting Limit</u>	<u>Regulatory Level</u>
Vinyl chloride	ND		0.50	2
1,1-Dichloroethene	ND		0.50	7
Methylene chloride	ND		0.50	5
trans-1,2-Dichloroethene	ND		0.50	100
Methyl tert-butyl ether	ND		0.50	
cis-1,2-Dichloroethene	ND		0.50	70
1,2-Dichloroethane	ND		0.50	5
1,1,1-Trichloroethane	ND		0.50	200
Carbon tetrachloride	ND		0.50	5
Benzene	ND		0.50	5
1,2-Dichloropropane	ND		0.50	5
Trichloroethene	ND		0.50	5
1,1,2-Trichloroethane	ND		0.50	5
Toluene	ND		0.50	1000
Tetrachloroethene	ND		0.50	5
Chlorobenzene	ND		0.50	100
Ethylbenzene	ND		0.50	700
Styrene	ND		0.50	100
1,4-Dichlorobenzene	ND		0.50	75
1,2-Dichlorobenzene	ND		0.50	600
1,2,4-Trichlorobenzene	ND		0.50	70
Xylenes, total	ND		0.50	10000

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LABORATORY RESULTS

Name:	HARTFORD		
Project/Facility Number:	1190505040	Date Received :	05/28/15
Funding Code:	LP52	Visit Number:	
Trip ID:		Temperature C:	4.00
Client Sample ID:	TRIP BLANKS	Lab Sample ID:	SE51137-07
Matrix:	Water	Collected By:	Date/Time Collected: 05/27/15 0:00
Sample Type:		Sample Depth:	Total Depth: 2

Volatile Organic Compounds by GC/MS

Method:	524.2	Prepared:	05/28/15 14:04
Units:	ug/L	Analyzed:	05/28/15 21:09

<u>Analyte</u>	<u>Result</u>	<u>Qualifier</u>	<u>Reporting Limit</u>	<u>Regulatory Level</u>
Vinyl chloride	ND		0.50	2
1,1-Dichloroethene	ND		0.50	7
Methylene chloride	ND		0.50	5
trans-1,2-Dichloroethene	ND		0.50	100
Methyl tert-butyl ether	ND		0.50	
cis-1,2-Dichloroethene	ND		0.50	70
1,2-Dichloroethane	ND		0.50	5
1,1,1-Trichloroethane	ND		0.50	200
Carbon tetrachloride	ND		0.50	5
Benzene	ND		0.50	5
1,2-Dichloropropane	ND		0.50	5
Trichloroethene	ND		0.50	5
1,1,2-Trichloroethane	ND		0.50	5
Toluene	ND		0.50	1000
Tetrachloroethene	ND		0.50	5
Chlorobenzene	ND		0.50	100
Ethylbenzene	ND		0.50	700
Styrene	ND		0.50	100
1,4-Dichlorobenzene	ND		0.50	75
1,2-Dichlorobenzene	ND		0.50	600
1,2,4-Trichlorobenzene	ND		0.50	70
Xylenes, total	ND		0.50	10000

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825 N. Rutledge Springfield, Illinois 62702 217.782.9780

LABORATORY RESULTS

Name: **HARTFORD**

Project/Facility Number: 1190505040

Funding Code: LP52

Trip ID:

Date Received: 05/28/15

Visit Number:

Temperature C: 4.00

Client Sample ID: **TRIP BLANKS**

Lab Sample ID: **SE51137-08**

Matrix: Water

Collected By:

Date/Time Collected: 05/28/15 0:00

Sample Type:

Sample Depth:

Total Depth:

Volatile Organic Compounds by GC/MS

Method: 524.2

Prepared: 05/28/15 14:04

Units: ug/L

Analyzed: 05/28/15 21:48

<u>Analyte</u>	<u>Result</u>	<u>Qualifier</u>	<u>Reporting Limit</u>	<u>Regulatory Level</u>
Vinyl chloride	ND		0.50	2
1,1-Dichloroethene	ND		0.50	7
Methylene chloride	ND		0.50	5
trans-1,2-Dichloroethene	ND		0.50	100
Methyl tert-butyl ether	ND		0.50	
cis-1,2-Dichloroethene	ND		0.50	70
1,2-Dichloroethane	ND		0.50	5
1,1,1-Trichloroethane	ND		0.50	200
Carbon tetrachloride	ND		0.50	5
Benzene	ND		0.50	5
1,2-Dichloropropane	ND		0.50	5
Trichloroethene	ND		0.50	5
1,1,2-Trichloroethane	ND		0.50	5
Toluene	ND		0.50	1000
Tetrachloroethene	ND		0.50	5
Chlorobenzene	ND		0.50	100
Ethylbenzene	ND		0.50	700
Styrene	ND		0.50	100
1,4-Dichlorobenzene	ND		0.50	75
1,2-Dichlorobenzene	ND		0.50	600
1,2,4-Trichlorobenzene	ND		0.50	70
Xylenes, total	ND		0.50	10000

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Illinois Environmental Protection Agency Laboratory

825 N. Rutledge Springfield, Illinois 62702 217.782.9780

LABORATORY RESULTS

Name: **HARTFORD**

Project/Facility Number: 1190505040

Funding Code: LP52

Trip ID:

Date Received : 05/28/15

Visit Number:

Temperature C: 4.00

Notes and Definitions

ND Analyte NOT DETECTED at or above the reporting limit

* Non-NELAP accredited

Report Authorized by:

A handwritten signature in black ink, appearing to read "Matthew C. Neely".

Matthew C. Neely
Organic Analysis Unit Supervisor

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